

harbor pilots (Stick, 1958; Riggs and Ames, 2007). As a result, Ocracoke Village (on the southwestern end of Ocracoke Island), and Portsmouth Village (on the northeastern end of Core Banks) flourished. Ocracoke Village is still a thriving community with a tourist-based economy. Portsmouth Village is now a historical site within the Cape Lookout National Seashore.

Drum and Ophelia Inlets

Drum Inlet (Fig. 14) initially opened in about 1899, but then closed naturally by 1919. It was then reopened during a major hurricane in 1933. Early attempts (beginning in 1938) at dredging by the U.S. Army Corps of Engineers did little to maintain a navigable channel for commercial fisherman (Stick, 1958; Riggs and Ames, 2007). By 1971, the inlet was nearly closed, and the U.S. Army Corps of Engineers proceeded to open New Drum Inlet several miles to the southwest. A channel was dredged and blasted through the island to create New Drum Inlet in 1971. The purpose of New Drum Inlet was to allow commercial fishing vessels to transit between the ocean and several small coastal communities. However, due to rapid shoaling, no commercial vessels have ever used the inlet (Riggs and Ames, 2007). In 1999, Hurricane Dennis reopened Drum Inlet, which is now referred to as New-Old Drum Inlet. In 2005, Hurricane Ophelia opened an inlet southwest of New Drum Inlet. Currently Ophelia Inlet is expanding, and has nearly merged with New Drum Inlet.

Buxton Inlet

Buxton Inlet (Fig. 15) opened in March 1962, during the Ash Wednesday storm which was an intense nor'easter. A bridge built over the inlet was destroyed in a second nor'easter in December of the same year. Following the bridge destruction, the U.S. Army Corps of Engineers decided to fill the inlet using dredged sand from the shallow sound behind the island at a location referred to as "The Haulover". The dredged hole still exists in this

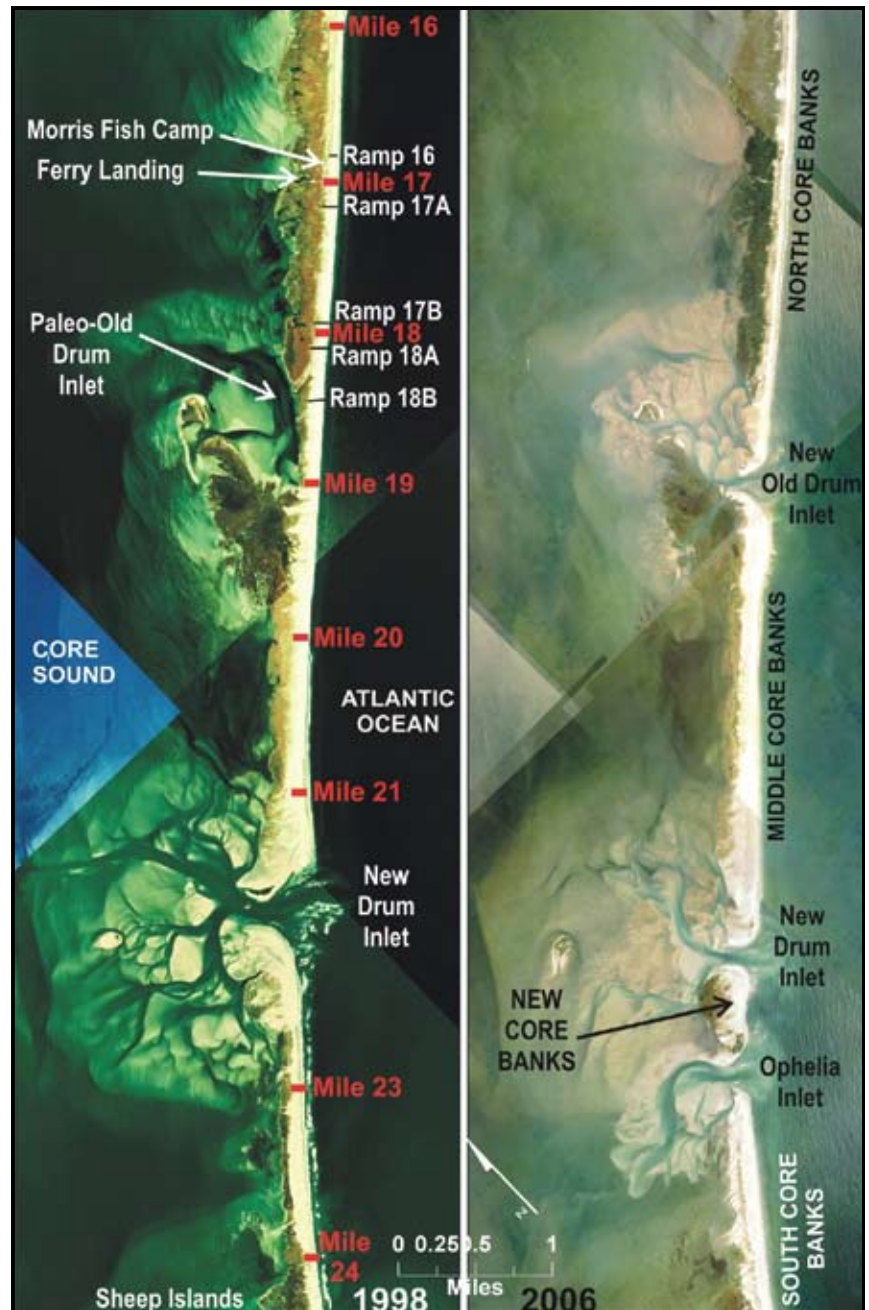


Figure 14. A figure showing two aerial photographs of Core Banks that illustrate the location of New Drum Inlet in 1998, and Ophelia and New-Old Drum Inlets in 2006 (NC State Database). New-Old Drum Inlet opened in 1999 during Hurricane Dennis in the same location that Old Drum inlet occurred (paleo-Old Drum Inlet in the 1998 photograph). Ophelia Inlet opened in 2005 during Hurricane Ophelia.

area between Avon and Buxton, and is commonly referred to as "Canadian Hole". Because this inlet was quickly closed, no significant flood-tide delta developed, and the island continues to narrow and is vulnerable to future inlet opening. The ocean shoreline at this location has receded approximately 2500 feet since 1852 with a net loss of 76% of island width by 1998 (Riggs and Ames, 2008).